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| 10/565,529 | 01/23/2006 | Nikolai Alekseevich Baranov | 4874-7004 | 9914 |
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| MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101 | | | EXAMINER ZANELLI, MICHAEL J | |
| | | | ART UNIT 3661 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/565,529

Applicant(s)

BARANOV ET AL.

Examiner

Michael J. Zanelli

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-850)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 1/23/05: 8/7/06

DETAILED ACTION

1. This application has been examined. The preliminary amendment has been entered. Claims 23-55 are pending.
2. The IDS filed 1/23/06 and 8/7/06 have been considered.
3. Applicant is requested to provide more specific identification of the "author's algorithm" cited on page 14 of the specification and any publications whereby one of ordinary skill in the art might obtain access.
4. Claims 52-55 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. As per claims 52-55, these claims are identical to base claims 36 and 37 and thus fail to further limit the subject matter of the claims from which they depend (i.e., claims 52 and 54 are identical to claim 36 and claims 53 and 55 are identical to claim 37).
5. Claims 23-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - A. As per claim 23, the following terms lack antecedence: "the aircraft parameters" (line 3); "the forecasted time" (line 12); "the instructive signal for the aircraft evasive maneuver" (lines 16-17); "the vortex generator danger areas" (lines 17-18); "the united complex" (line 22); "the wind velocity components in the inertial frame" (lines 32-33); "the ambient turbulence" (line 34); and "the nulling

distance" (line 42). Also at lines 13 and 15 "users" should be --user--. At line 18 the claim is confusing as recited ("during the chosen by the user delay time").

B. As per claim 24, the following terms lack antecedence: "the vortex generator standard equipment" (lines 6-7); "the user computer software" (line 15); "the site of the flight controller" (lines 17-18); "the flight controller" (lines 21-22) and "the aircraft flight control system" (line 27).

C. As per claim 25, the following terms lack antecedence: "the set of the vorticity center paths" (line 17); "the delay time" (line 22); "the control plane" (line 27); "the generator wake vortex trajectory" (lines 42-43); "the flight parameters exceeding the admissible limits" (lines 48-49); "the flight regulations" (line 51) and "the alert area" (line 52).

D. As per claim 26, the following terms lack antecedence: "the trajectory point coordinates" (lines 22-23) and "the set of trajectories" (line 27). Also it is unclear whether the terms "trajectory" and "path" are equivalents since applicant seems to be switching back and forth between these terms (see for example lines 30-31 and 37).

E. As per claim 27, the following terms lack antecedence: "the vortex generator tracker (8)"; "memory units (9 and 12)"; "wake vortex tracker (11); "device (15)"; "forecasting device (16)"; "device (17)"; "regions forming device (18)" and "first and the second units (19 and 20)". Note these terms find support in claim 25.

F. As per claim 28, the following terms lack antecedence: "said device (14) [sic: 13] for selection of the delay time"; "said areas and regions forming device (18)"; "the manual mode"; "the semiautomatic" and "automatic mode". Note these terms find support in claim 25.

G. As per claim 29, "the control surface" (line 4) lacks antecedence.

H. As per claim 30, the claim sets forth an improper open-ended Markush group ("the group including"). The examiner suggests changing "including" to --consisting of--.

I. As per claim 31, the following terms lack antecedence: "the aircraft admissible roll" and "the hazard criterion".

J. As per claim 33, the following terms lack antecedence: "said wake vortex tracker (11)"; "said forecasting device (16)"; "said device (15)" and "the programmable component software". Note these terms find support in claim 25.

K. As per claim 34, "the devices and units of said warning subsystem (4)" and "the different localization" lack antecedence.

L. As per claim 35, "the control surface" (line 3) lacks antecedence.

M. As per claim 36, "said device (15)" lacks antecedence (see claim 25). At line 3 it is unclear which "device" is being referred to (see multiple devices recited in base claim 28). The following terms lack antecedence: "the aircraft schematization" (line 4); "the given point" (line 10); "the trajectories of the vorticity area centers (lines 12-13) and "the hazard level" (line 16).

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N. As per claim 37, "said unit (15)" lacks antecedence (see claim 25). Also it is believed "unit" should be --device--.

O. As per claims 38, 40, 42, 44, 46, 48, 50, 52 and 54, note comments above for claim 36.

P. As per claims 39, 41, 43, 45, 47, 49, 51, 53 and 55, note comments above for claim 37.

Q. All claims depending from a rejected base claim are also rejected as containing the same deficiencies.

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 23 and 25-55 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 8-18 of U.S. Patent No.

7,333,030. Although the conflicting claims are not identical, they are not patentably

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distinct from each other because the scope of the patented claims are fully encompassed within the scope of the application claims. For example, application claims 23 and 25 incorporate the subject matter of patent claim 8.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 23 and 24, as best interpreted given the deficiencies noted above, are rejected under 35 U.S.C. 102(b) as being anticipated by Cabot et al. (6,177,888).

A. As per claim 23, Cabot discloses an aircraft vortex safety system (Fig. 2) which comprises aircraft parameter informational subsystem (28), vortex generator informational subsystem (32), ambient parameters informational subsystem (40), a subsystem (44) for generating vortex warnings, user subsystem (46, 48) for forming instructional signals for evading vortex (see col. 9:17-30) and communication means (i.e., wiring) which enables the subsystems to communicate with one another. The various subsystems are capable of providing various parameters necessary in tracking vortex trajectories and relating the trajectories to the position of the aircraft whereby the user is alerted and/or provided with information in avoiding the vortex (see cols. 4-7).

B. As per claim 24, as above whereby the subsystems are realized by onboard aircraft equipment.

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10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited documents are of general interest.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (571) 272-6969. The examiner can normally be reached on Monday-Thursday 9:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J. Zanelli/
Primary Examiner
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